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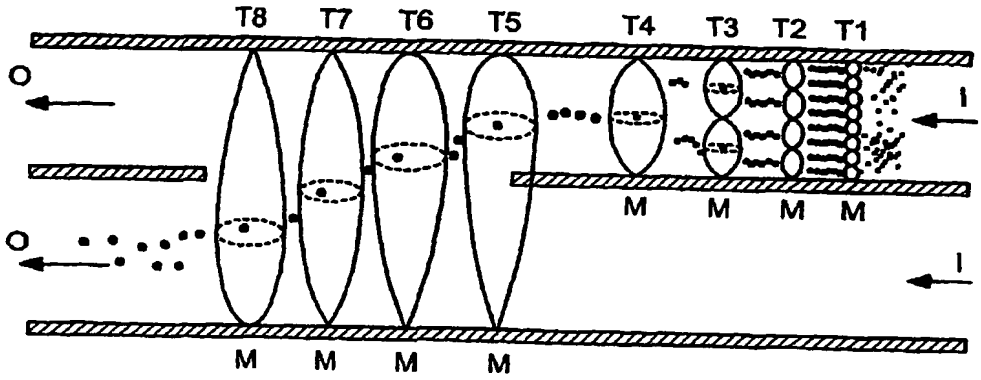
(54) Title: METHOD AND DEVICE FOR ULTRASONICALLY MANIPULATING PARTICLES WITHIN A FLUID



(57) Abstract: Fluid-handling methods and devices for ultrasonic manipulation of fluid-borne particles comprise a fluid-handling manifold and an ultrasonic particle manipulator defining an ultrasonic cavity within the manifold. Fluid-borne particles introduced into the manifold are manipulated by controlling ultrasonic standing waves at the ultrasonic cavity. Cavities having non-uniform configurations, asymmetric standing waves and/or multiple ultrasonic cavities within the manifold are operative to control the movement of the fluid-borne particles, optionally including collecting and holding such particles, transferring particles through an intersection from one channel to another, etc. Solid phase extraction (SPE) particles, biological particles and other fluid-borne particles can be manipulated within the fluid-handling manifold.

WO 2003/102737 A3

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A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B01D43/00 B01D51/08 B01D21/00 A61M1/36

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B01D A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, PAJ, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	US 6 245 207 B1 (YASUDA KENJI ET AL) 12 June 2001 (2001-06-12) figure 3	1-4,38
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X	US 6 332 541 B1 (COAKLEY WILLIAM TERENCE ET AL) 25 December 2001 (2001-12-25) figure 3	1-4,15

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in annex.

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Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Hoffmann, A

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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